WHAT IS CLAIMED IS:

1. A method for rearranging data comprising the steps of:

a) storing data in a first data storage section;

b) storing data rearrangement information in a stack; and

c) reading the data stored in the first data storage section, and storing the data in a second data storage section based on the data rearrangement information stored in the stack.

2. The method according to claim 1, wherein the data rearrangement information contains an address of the second data storage section.

3. The method according to claim 2, wherein the first data storage section is a register; and

the second data storage section is a random access memory.

4. A method for rearranging data comprising the steps of:

a) storing a plurality of data in a first data storage section;

b) storing data rearrangement information in a stack; and

c) reading the plurality of data stored in the first data storage section in an order based on the data rearrangement information stored in the stack, and storing the data in a second data storage section.

5. The method according to claim 4,

wherein the data rearrangement information contains an address of the second data storage section.

5   6. The method according to claim 5,

wherein the first data storage section is a random access memory; and

the second data storage section is a register.

10   7. The method according to claim 5,

wherein the first data storage section and the second data storage section are random access memories.

8. A method for rearranging data comprising the

15   steps of:

a) storing a plurality of data in a first data storage section;

b) storing data rearrangement information in a stack; and

20   c) reading the plurality of data stored in the first data storage section, and storing the data in a second data storage section based on the data rearrangement information stored in the stack.

25   9. The method according to claim 8,

wherein the data rearrangement information contains an address of the second data storage section.

10. The method according to claim 9,

30   wherein the first data storage section and the second data storage section are random access memories.

11.   The method according to claim 1,

wherein the reading and the storing are carried out by using an address conversion table and a corresponding stack pointer.

5

12.   The method according to claim 1, further comprising:

calculating logic OR operation or logic ADD operation of a read address and an offset register.

10

13.   The method according to claim 11, wherein the reading and the storing are carried out by using a registor substituted for the stack pointer.

15   14.   The method according to claim 11, wherein the data stored in the address conversion table includes byte write information.